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09/764,247	01/17/2001	Thomas C. Bressoud	1-1-1-1	5905

			EXAMINER
22046	7590	03/02/2005	PHILLIPS, HASSAN A

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2151	

DATE MAILED: 03/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 December 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This action is in response to amendments filed on December 13, 2004.

Response to Arguments

2. Applicant's arguments filed December 13, 2004 have been fully considered but they are not persuasive. Applicant argued that neither Waldo or King teach "an application of the client having a connection with the server has not detected anomalies in the connection". Examiner respectfully disagrees.

In regards to the Applicant's arguments, although Waldo discloses failure recovery schemes in which the client, server, and **related entities** are placed in a pre-failure state, the teachings of Waldo suggest that only an open application is aware of the failure after recovery, (col. 13, lines 10-18). In further teachings, (col. 16, line 60 through col. 17) Waldo shows a specific example of a client application having a connection with the server where anomalies are not detected in the connection. Thus, it is implicit in the teachings of Waldo that after a server fails in connection with one client application, after recovery, a completely different client application may open and connect with the server without detecting any anomalies in the connection.

Furthermore, the Examiner has interpreted the claim language as broadly as possible. It is also the Examiner's position that Applicant has not yet submitted claims

drawn to limitations, which define the operation and apparatus of Applicant's disclosed invention in a manner that distinguishes over the prior art.

Failure for Applicant to significantly narrow definition/scope of the claims implies the Applicant intends broad interpretation be given to the claims. The Examiner has interpreted the claims with scope parallel to the Applicant in the response and reiterated the need for Applicant to define the claimed invention more clearly and distinctly. Accordingly the references supplied by the examiner in the previous office action covers the claimed limitations. The rejections are thus sustained. Applicant is requested to review the prior art of record for further consideration.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1, 4, 5, 7, 12, are rejected under 35 U.S.C. 103(a) as being unpatentable over Waldo et al. (hereinafter Waldo), U.S. patent 6,016,500, in view of King.

5. In considering claim 1, Waldo teaches a method for maintaining a connection between a server and a client comprising the steps of: receiving, storing, and

transmitting one or more message elements, (col. 12, lines 59-62, and col. 13, lines 32-35); determining whether the server has failed and when the server has failed, restoring the server to a pre-failure connection state using one or more of the stored message elements, (col. 13, lines 35-40); after restoring the server, an application of the client having a connection with the server has not detected anomalies in the connection, (col. 16, line 60 through col. 17, line 12).

Although the disclosed method of Waldo shows substantial features of the claimed invention it fails to expressly disclose:

       a) Determining whether to store one or more elements of the message.

Nevertheless, determining whether to store messages sent from a server to a client was well known in the art at the time of the present invention, especially if the client was a mobile device. In a similar field of endeavor, King demonstrates this, and teaches a client server system comprising:

       a) Determining in a mobile client device whether to store a message sent

          from a server, (col. 12, lines 17-37).

Determining whether or not to store messages, or elements of a message, by a mobile device is done because the memory of the mobile device is typically not large enough to store all the elements of a message sent to it. Thus, given the teachings of King, it would have been obvious to one of ordinary skill in the art at the time of the present invention to modify the teachings of Waldo to show determining whether to store one or more elements of the message. This would provide an efficient means storing various messages received by the client by screening the messages in order to

determine whether the messages, or elements of the messages, are important enough

to be stored 404, King Fig. 4.

6. In considering claim 4, the method of Waldo further teaches:

   a) Determining whether to discard the message, (col. 18, lines 14-17);

   b) Not transmitting, and discarding the message when the message is to be

   discarded, (col. 18, lines 17-21).

7. In considering claim 5, the method of Waldo further teaches:

   a) Determining whether to modify the message, (col. 18, lines 11-13);

   b) Modifying one or more elements of the message when the message is to

   be modified, (col. 18, lines 13-14).

8. In considering claim 7, it is implicit that the method of Waldo comprises a

means for periodically storing a current state of the server and discarding any stored

elements that are no longer needed to restore the server to the current state. See col.

13, lines 5-13.

9. In considering claim 12, the method of Waldo discloses a memory in the

server for storing the one or more message elements. See col. 10, lines 40-47.

10. Claims 2, 3, 10, 11, 13, are rejected under 35 U.S.C. 103(a) as being

unpatentable over Waldo and King, in view of Hickman et al. (hereinafter Hickman),

U.S. patent 6,523,130.

11. In considering claim 2, although the disclosed method of Waldo and King

shows substantial features of the claimed invention it fails to expressly disclose:

    a) Delaying transmission of the message.

Nevertheless, in a similar field of endeavor, Hickman teaches a system having

error detection and recovery comprising:

    a) Delaying a message until one or more elements of the message are

       successfully stored in a restored storage server 204, (col. 10, lines 61-67,

       col. 11, lines 1-6).

Given the teachings of Hickman, it would have been apparent to one of ordinary

skill in the art at the time of the present invention to modify the teachings of Waldo and

King to delay transmission of the message if the client/server failed, and transmitting the

message after the client/server restored. This would provide an efficient means for

transmitting data to/from the client/server in the case of client/server failure. This would

also prevent losing important data while the client/server is being restored, Hickman,

col. 10, lines 59-64.

12. In considering claim 3, although the disclosed method of Waldo and King

shows substantial features of the claimed invention it fails to expressly disclose:

b) Delaying transmission of the message until an element of the message is

successfully stored.

Nevertheless, in a similar field of endeavor, Hickman teaches a system having

error detection and recovery comprising:

b) Delaying a message until one or more elements of the message are

successfully stored in a restored storage server 204, (col. 10, lines 61-67,

col. 11, lines 1-6).

Given the teachings of Hickman, it would have been apparent to one of ordinary

skill in the art at the time of the present invention to modify the teachings of Waldo and

King to delay transmission of the message if the client/server failed, and transmitting the

remaining elements of the message after the client/server restored. This would provide

an efficient means for transmitting data to/from the client/server in the case of

client/server failure. This would also prevent losing important data while the

client/server is being restored, Hickman, col. 10, lines 59-64.

13. In considering claim 10, although the disclosed method of Waldo and King

shows substantial features of the claimed invention it fails to expressly disclose:

a) Storing a message element in a log server.

Nevertheless, in a similar field of endeavor, Hickman teaches a system having

error detection and recovery comprising:

a) Storing message elements in a log server 208, (col. 10, lines 51-53).

Given the teachings of Hickman, it would have been apparent to one of ordinary skill in the art at the time of the present invention to modify the teachings of Waldo and King to store one or more of the message elements in a log server. This would facilitate in determining what state the client/server was in before failing, and would further assist in returning the client/server to the proper state once the client/server is restored, Hickman, col. 10, lines 59-61.

14. In considering claim 11, although the disclosed method of Waldo and King shows substantial features of the claimed invention it fails to expressly disclose:

a) A log server remotely located from the server.

Nevertheless, in a similar field of endeavor, Hickman teaches a system having error detection and recovery comprising:

a) A log server 208 remotely located from the server, (see fig. 6).

Given the teachings of Hickman, it would have been apparent to one of ordinary skill in the art at the time of the present invention to modify the teachings of Waldo and King to have a log server remotely located from the server. This would facilitate in determining what state the client/server was in before failing, and would further assist in returning the client/server to the proper state once the client/server is restored, Hickman, col. 10, lines 59-61.

15. In considering claim 13, although the disclosed method of Waldo and King shows substantial features of the claimed invention it fails to expressly disclose:

a) Storing message elements in a secondary server.

Nevertheless, in a similar field of endeavor, Hickman teaches a system having

error detection and recovery comprising:

a) Storing message elements in a secondary server 208, (col. 10, lines 51-

53).

Given the teachings of Hickman, it would have been apparent to one of ordinary

skill in the art at the time of the present invention to modify the teachings of Waldo and

King to store one or more of the message elements in a secondary server. This would

facilitate determining what state the client/server was in before failing, and would further

assist in returning the client/server to the proper state once the client/server is restored,

Hickman, col. 10, lines 59-61.

16. Claims 6, 14, are rejected under 35 U.S.C. 103(a) as being unpatentable over

Waldo and King, in view of Harsch, U.S. patent 6,212,175.

17. In considering claim 6, although the disclosed method of Waldo and King

shows substantial features of the claimed invention it fails to expressly disclose:

a) Periodically transmitting an outgoing message to maintain a connection

until the server is restored.

Nevertheless, in a similar field of endeavor, Harsch teaches a method for

maintaining a connection between a client and server comprising:

a) Periodically transmitting a message 390 to maintain a connection until a

mobile unit 66 powers up, (col. 11, lines 66-67, col. 12, lines 1-2).

Given the teachings of Harsch, it would have been apparent to one of ordinary

skill in the art at the time of the present invention to modify the teachings of Waldo and

King to periodically transmit outgoing messages to maintain a connection until the

server is restored. Doing so would ensure the client and server remain connected while

the server is being restored, Harsch, col. 11, lines 61-66.

18. In considering claim 14, although the disclosed method of Waldo and King

shows substantial features of the claimed invention it fails to expressly disclose:

a) Periodically transmitting an outgoing message to maintain a connection

until the server is restored.

Nevertheless, in a similar field of endeavor, Harsch teaches a method for

maintaining a connection between a client and server comprising:

a) Periodically transmitting a message 390 to maintain a connection until a

mobile unit 66 powers up, (col. 11, lines 66-67, col. 12, lines 1-2).

Given the teachings of Harsch, it would have been apparent to one of ordinary

skill in the art at the time of the present invention to modify the teachings of Waldo and

King to periodically transmit outgoing messages to maintain a connection until the

server is restored. Doing so would ensure the client and server remain connected while

the server is being restored, Harsch, col. 11, lines 61-66.

19. Claims 8, 9, are rejected under 35 U.S.C. 103(a) as being unpatentable over

Waldo and King, in view of Devarakonda et al. (hereinafter Devarakonda), U.S. patent

5,566,297.

20. In considering claim 8, although the disclosed system of Waldo and King

shows substantial features of the claimed invention, it fails to expressly disclose:

a) The message being a protocol segment.

Nevertheless protocol segment messages sent between clients and servers were

well known in the art at the time of the present invention. This is exemplified by the

methods of Devarakonda, who teaches a method of recovery from server failure

comprising:

a) Protocol segment messages, (col. 2, lines 38-40, also see fig. 3).

Given the teachings of Devarakonda it would have been apparent to one of

ordinary skill in the art to modify the teachings of Waldo and King to have the messages

be protocol segment messages. This would have provided a well known means of

communication between the client and the server, Devarakonda, col. 1, lines 14-21.

21. In considering claim 9, although the disclosed system of Waldo and King

shows substantial features of the claimed invention, it fails to expressly disclose:

a) Conforming to the Transmission Control Protocol (TCP) standard.

Nevertheless messages conforming to the TCP standard were well known in the art at the time of the present invention. This is exemplified by the methods of Devarakonda, who teaches a method of recovery from server failure comprising:

a) Conforming to a TCP standard, (col. 2, lines 7-9).

Given the teachings of Devarakonda it would have been apparent to one of ordinary skill in the art to modify the teachings of Waldo and King to have the messages conform to the TCP standard. This would have provided a well known means of communication between the client and the server, Devarakonda, col. 1, lines 14-21.

Conclusion

22. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

23. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hassan Phillips whose telephone number is (571) 272-3940. The examiner can normally be reached on M-F 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung can be reached on (571) 272-3939. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HP/
2/28/05

ZARNI MAUNG
SUPERVISORY PATENT EXAMINER